

Appl. No. 10/825,380  
Amdt. dated September 7, 2005  
Reply to Office action of June 7, 2005

### REMARKS

#### **35 USC Section 112 Rejection for Indefiniteness**

Claim 1 was objected to for the term "Mw" at line 10, "a catalyst component" at lines 12-15, and "a second reaction zone" at line 29. The Mw correction is also made in several dependent claims. The claim has been amended for clarification and to cure these defects and to further define the invention by proper antecedent reference.

#### **35 USC Section 103(a) Rejection over Canich et al. US No. 5,516,848 ("Canich")**

Canich is cited for the preparation of amorphous/crystalline polypropylene blends with two catalysts and for disclosing physical blends. While Canich does not teach continuous process with two or more reaction zones, the rejection suggests the obviousness of sequential polymerization in the art.

Applicants respectfully traverse the rejection with respect to the amended claims.

Claim 1 requires not only an appropriate selection of catalysts and the use of sequential reaction zones, flowing the contents of the first reaction zone to the second, but also the steps of contacting the olefins and catalysts for less than 120 minutes per zone at greater than 70 degrees C. This is not taught or suggested by Canich or the art of record.

Canich is directed to producing a typical blend of higher polymers using suitable process parameters to ensure production of typical rubbery, relatively high

Page 67 of 69

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molecular weight amorphous polymer and crystalline polymer. See Canich at the Examples. All reactions are carried out at 40 degrees C or 60 degrees C and high polymers are always produced and recovered.

The invention requires higher temperature contacting which promotes branching to combine amorphous and crystalline branches. This is nowhere taught or suggested in the prior art. Applicants' claimed contacting processes at low reaction times produce an improved material not disclosed elsewhere. See the polymers recovered and reported in the Tables of the Examples. Any prima facie case of obviousness is certainly refuted by the unexpected results of being able to provide branched polymers by using the claimed process.

Sequential polymerization might have been considered by the skilled artisan to control molecular weight and polymer composition but nothing suggests the appropriate process parameters, especially temperature (and resulting branched polymers) of the invention. The skilled artisan may elsewhere see general disclosure of broad temperature ranges for polymerizations but one trying to retain amorphous polymer characteristic with another polymer would not be led to stray from the lower temperature conditions used in the art to obtain amorphous polymer of higher molecular weight.

Reconsideration and allowance of the claims as amended is respectfully requested.

